



Register Number:

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ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE – 27
M.Sc. DATA ANALYTICS – I SEMESTER
SEMESTER EXAMINATION – JANUARY 2021
BDA1620: PYTHON PROGRAMMING

This Question Paper Contains Three Printed Page and One Part

Time: 2 1/2 hrs.

Maximum marks: 70

Answer all the questions

7 X 10 = 70

1

- a) Describe the various built-in numeric data types in Python 5
- b) Define identifiers? Discuss the rules to name an identifier. 5

2

- a) Explain the operator precedence in python 4
- b) Explain the Type conversion in python with example 6

3

- a) Write Python program to add two matrices and also find the transpose of the resultant matrix. 5
- b) Explain the different Loops available in python? 5

4

- a) Discuss any five mathematical function in python with examples 5
- b) Explain the user defined function with an example 5

5

a) Explain the OOP terminology in python 5

b) Define class. Explain the class creation with an example. 5

6

a) Write Python program that accepts a sentence and calculate the number of words, digits, uppercase letters and lowercase letters. 7

b) Discuss format specifiers and escape sequences with examples. 3

7

a) Discuss the following dictionary methods with an example.

a) get() b) keys() c) pop() d) update() e) values() f) items() 6

b) Write a Python program to check for the presence of a key in the dictionary and find the sum all its values. 4

8

a) Write a Python program to check the validity of a password given by the user.

The Password should satisfy the following criteria: 7

1. Contain at least 1 letter between a and z

2. Contain at least 1 number between 0 and 9

3. Contain at least 1 letter between A and Z

4. Contain at least 1 character from \$, #, @

5. Minimum length of password: 6

6. Maximum length of password: 12

b) "Write Pythonic code to find Mean, Variance and Standard Deviation for a list of numbers." 3

9

- a) Explain the need for Pickle module. Write Python program to save dictionary in Python Pickle. 5
- b) Discuss the List Slicing and List Mutability. 5

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